

**OIL ANALYSIS REPORT** 

#### WEAR **ABNORMAL** CONTAMINATION **SEVERE** FLUID CONDITION **ATTENTION**



# VOLVO EC160EL 310125

**Rear Right Final Drive** 

# VOLVO SUPER GEAR OIL 75W-80-GO102 (--- GAL)

### RECOMMENDATION

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. ( Customer Sample Comment: 85w-140. Changed to GO102 75w-80)

#### **WEAR**

Gear wear is indicated.

## CONTAMINATION

JID CONDITION

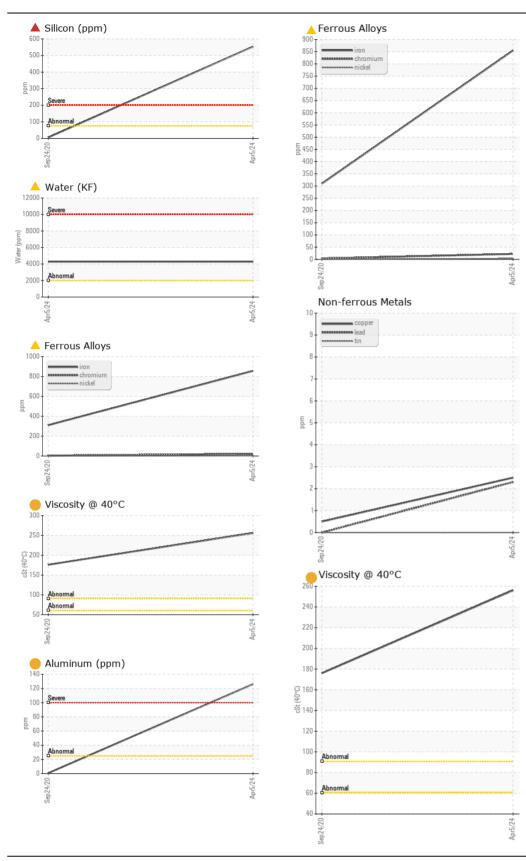
due to the presence of contaminants.

There is a moderate concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.

Test	UOM	Method	Limit/Abn	Cı	urrent	History1	History2
Sample Number		Client Info		М	L0001449	VCP293406	
Sample Date		Client Info		05	Apr 2024	24 Sep 2020	
Machine Age	hrs	Client Info		22	260	1019	
Oil Age	hrs	Client Info		10	000	0	
Filter Age	hrs	Client Info		0		0	
Oil Changed		Client Info		CI	hanged	N/A	
Filter Changed		Client Info		N/	Ά	N/A	
Sample Status				SE	EVERE	NORMAL	
						010	
Iron	ppm	ASTM D5185m	>500		855	310	
Chromium	ppm	ASTM D5185m	>10		22	4	
Nickel	ppm	ASTM D5185m	>10		3	0	
Titanium	ppm	ASTM D5185m			8	0	
Silver	ppm	ASTM D5185m			<1	<1	
Aluminum	ppm	ASTM D5185m	>25		126	<1	
Lead	ppm	ASTM D5185m	>25		2	0	
Copper	ppm	ASTM D5185m	>50		2	<1	
Tin	ppm	ASTM D5185m	>10		0	0	
Vanadium	ppm	ASTM D5185m			1	0	
White Metal	scalar	*Visual	NONE		NONE	LIGHT	
Yellow Metal	scalar	*Visual	NONE		NONE	NONE	
Silicon	ppm	ASTM D5185m	>75		554	5	
Potassium	ppm					-	
		ASTM D5185M	>20		51	2	
Water	%	ASTM D5185m ASTM D6304	>20 >0.2		51 0.428	2	
	%						
Water ppm Water Silt		ASTM D6304	>0.2	<b>^</b>	0.428		  
ppm Water	% ppm	ASTM D6304 ASTM D6304 *Visual	>0.2 >2000	<b>^</b>	0.428 4280		
ppm Water Silt	% ppm scalar	ASTM D6304 ASTM D6304	>0.2 >2000 NONE		0.428 4280 MODER	  NONE	
ppm Water Silt Debris Sand/Dirt	% ppm scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual	>0.2 >2000 NONE NONE		0.428 4280 MODER NONE	 NONE LIGHT	 
ppm Water Silt Debris	% ppm scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual	>0.2 >2000 NONE NONE NONE		0.428 4280 MODER NONE NONE	 NONE LIGHT NONE	 
ppm Water Silt Debris Sand/Dirt Appearance	% ppm scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual	>0.2 >2000 NONE NONE NONE		0.428 4280 MODER NONE NONE NORML	 NONE LIGHT NONE NORML	 
ppm Water Silt Debris Sand/Dirt Appearance Odor	% ppm scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NONE NORML NORML	 NONE LIGHT NONE NORML NORML	 
ppm Water Silt Debris Sand/Dirt Appearance Odor	% ppm scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NONE NORML NORML	 NONE LIGHT NONE NORML NORML	 
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	% ppm scalar scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORME NORML 0.2%	 NONE LIGHT NONE NORML NORML NEG	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	% ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML NORML 0.2%	 NONE LIGHT NONE NORML NORML NEG	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	% ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML NORML 0.2% 26 100	 NONE LIGHT NORML NORML NEG 2 14	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	% ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML NORML 0.2% 26 100 3	 NONE LIGHT NONE NORML NEG 2 14 0 <1 3	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	% ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML NORML 0.2% 26 100 3 2	 NONE LIGHT NORML NORML NEG 2 14 0 <1	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	% ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML 0.2% 26 100 3 2 2 12	 NONE LIGHT NONE NORML NEG 2 14 0 <1 3	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	% ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML NORML 0.2% 26 100 3 2 12 12 18	 NONE LIGHT NONE NORML NORML NEG 2 14 0 <1 3 2 2	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Malybdenum Magnesium Calcium	% ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML 0.2% 26 100 3 2 12 12 18 94	 NONE LIGHT NORML NORML NEG 2 14 0 <1 3 2 34	
ppm Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Molybdenum Manganese Magnesium Calcium	% ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D6304 ASTM D6304 *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>0.2 >2000 NONE NONE NORE NORML		0.428 4280 MODER NONE NORML 0.2% 26 100 3 2 12 12 18 94 987	 NONE LIGHT NONE NORML NORML NEG 2 14 0 <1 3 2 34 413	

The oil viscosity is higher than normal. The oil is no longer serviceable

Submitted By: Service - Alex Anderson



MCCLUNG-LOGAN EQUIPMENT CO - RICHMOND Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received 1345 MOUNTAIN ROAD : ML0001449 : 16 Apr 2024 Lab Number : 06150729 GLEN ALLEN, VA Tested : 18 Apr 2024 Unique Number : 10980807 : 18 Apr 2024 - Don Baldridge US 23060 Diagnosed Test Package : CONST (Additional Tests: KF) Contact: Alex Anderson Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. aanderson@mcclung-logan.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F: (804)266-1611 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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